

## ABSTRACT

A phase/amplitude control section controls the phase and amplitude of at least one of the signals: a distributed signal distributed by a modulation signal distributor and a reference signal based on an orthogonal base-band signal. A signal combiner combines a combinatory signal according to the distributed signal and the reference signal whose phase and amplitude have been controlled. A reference table updating section updates non-linear distortion compensating data according to the combinatory signal subjected to A/D conversion and the orthogonal base-band signal. With this configuration, since a known signal component is removed from the combinatory signal, the change amount of the signal input to the A/D converter of a feedback system circuit is reduced and the A/D converter of the feedback system circuit need not have a wide dynamic range performance.